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Jawaharlal Nehru

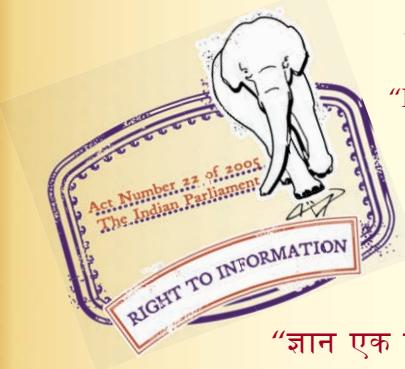
“Step Out From the Old to the New”

IS 10364 (2001): Samp type back covers and bezel for watch cases - Dimensions [PGD 23: Horology]

**“ज्ञान से एक नये भारत का निर्माण”**

Satyanaaranay Gangaram Pitroda

Invent a New India Using Knowledge



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Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”





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घड़ी केसिस के लिए स्नेप टाइप वाले  
पिछले ढक्कन व बेजल — आयाम  
( पहला पुनरीक्षण )

*Indian Standard*

SNAP TYPE BACK COVERS AND BEZEL  
FOR WATCH CASES — DIMENSIONS

*(First Revision)*

ICS 39.040.10

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BUREAU OF INDIAN STANDARDS  
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NEW DELHI 110002

## FOREWORD

This Indian Standard ( First Revision ) was adopted by the Bureau of Indian Standards, after the draft finalized by the Horology Sectional Committee had been approved by the Basic and Production Engineering Division Council.

This standard published in 1982, covered dimensions of back cover and bezel relevant to the following types of snap fittings:

*Type A* — Suitable for WR-3 and NWR-3 type watch cases

*Type B* — Suitable for NWR-2 type watch case

This first revision gives the dimensions of snap type back covers and bezel of watch cases of the following types:

*Type A* — Snap type back covers for round watch cases ( both water resistance and non-water resistance )

*Type B* — Hook type back covers for round and shaped watch cases ( both water resistance and non-water resistance )

*Type C* — Hook type back cover and packing ring in back cover for round watch cases ( both water resistance and non-water resistance )

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values ( revised )'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard*

# SNAP TYPE BACK COVERS AND BEZEL FOR WATCH CASES — DIMENSIONS

( *First Revision* )

## 1 SCOPE

This standard covers the dimensions of common types of back cover and bezel for watch cases.

## 2 TYPES

The snap type back covers and bezel for watch cases shall be of the following types:

*Type A* — Snap type back covers for round watch cases ( both water resistance and non-water resistance ),

*Type B* — Hook type back covers for round and shaped watch cases ( both water resistance and non-water resistance ), and

*Type C* — Hook type back cover and packing ring in back cover for round watch cases ( both water resistance and non-water resistance ).

## 3 DIMENSIONS

The dimensions shall be as given in Tables 1, 2 and 3 with nomenclature as in 3.1.

### 3.1 NOMENCLATURE ( see Tables 1, 2 and 3 )

*d<sub>1</sub>* — Fitting diameter or dimension on back cover hook

*d<sub>2</sub>* — Fitting diameter on back cover

*d<sub>3</sub>* — Packing ring housing diameter or dimension on back cover

*d<sub>4</sub>* — Inner diameter or dimension on back cover

*d<sub>5</sub>* — Fitting diameter or dimension on bezel

*d<sub>6</sub>* — Dimensions at hook embossing area after machining

*d<sub>7</sub>* — Distance across grooves ( grooves preferably at 6H/12H )

*d* — Outer diameter or dimension on back cover

*h<sub>1</sub>* — Fitting height on back cover

*h<sub>2</sub>* — Packing ring box height on back cover/bezel

*h<sub>4</sub>* — Level difference between back cover butting and back cover inner surface

*h<sub>5</sub>* — Fitting height on bezel

*h<sub>6</sub>* — Straight portion at back cover fitting area

*h<sub>7</sub>* — Groove matching height from case bottom

*h<sub>3</sub>* — Height of fitting radius on back cover

*h<sub>8</sub>* — Hook embossing height from back cover butting face

*W<sub>1</sub>* — Width of packing ring box

*R<sub>1</sub>* — Fitting radius on back cover

*C* — Entry chamfer on bezel

*A°* — Entry angle on bezel

*B°* — Fitting angle on back cover

*C°* — Locking angle on back cover for hook type back cover

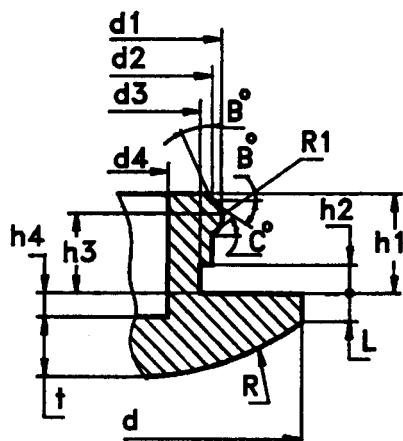
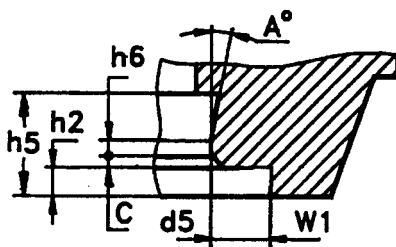
*t* — Sheet metal thickness of back cover

*R* — Radius at back cover bottom

*L* — Straight land on back cover outer diameter

Table 1 Type A — Dimensions for Snap Type Back Covers for Round Watch Cases

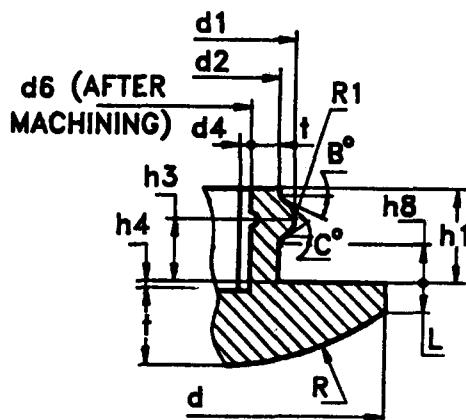
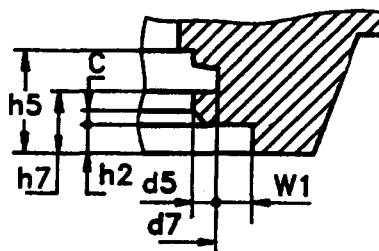
( Clause 3 )



Dimension <sup>1)</sup> (mm)	Description (2)	Tolerance <sup>2)</sup> (3)	Dimension <sup>1)</sup> (mm)	Description (2)	Tolerance <sup>2)</sup> (3)
(1) $d_5$	Based on the size of dial opening and case size	0 - 25	(1) $h_2$	0.35 for water resistant cases 0.30 for non-water resistant cases	$\pm 30$
(1) $d_1$	$d_5 + 0.05$	+ 25 0	(1) $h_3$	0.95	—
(1) $d_2$	$d_1 - 0.20$	$\pm 50$	(1) $h_4$	0.10 minimum	$\pm 30$
(1) $d_3$	$d_1 - 0.45$	$\pm 50$	(1) $h_5$	1.30	$\pm 30$
(1) $d_4$	$d_1 - 1.25$	—	(1) $h_6$	0.15	—
(1) $d$	$d_5 + 2.00$ for water resistant cases $d_5 + 1.60$ for non-water resistant cases	—	(1) $C$	$0.20 \times 45^\circ$	—
$A^\circ$	$10^\circ$	$\pm 30'$	(1) $W_1$	0.525 for water resistant cases 0.325 for non-water resistant cases	$\pm 50$
$B^\circ$	$30^\circ$	$\pm 30'$	(1) $C^\circ$	$15^\circ$	—
$R_1$	0.40	$\pm 30$	(1) $t$	0.60 minimum for gents cases 0.50 minimum for ladies cases	—
$h_1$	1.30	$\pm 30$	(1) $L$	0.30 minimum	—

<sup>1)</sup> Except  $A^\circ$ ,  $B^\circ$  and  $C^\circ$ .<sup>2)</sup> General tolerance  $\pm 100$  and tolerance in micrometre ( $\mu m$ ).

**Table 2 Type B — Dimensions for Hook Type Back Covers for Round and Shaped Watch Cases**  
*(Clause 3)*

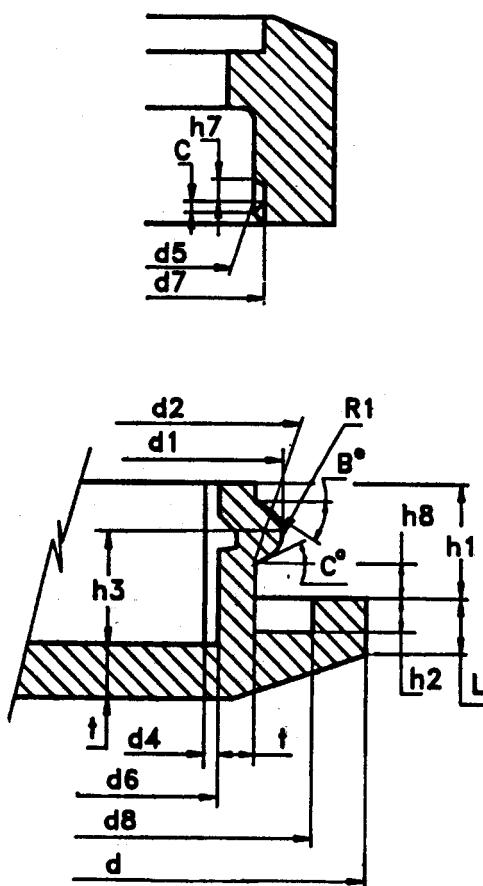


Dimension <sup>1)</sup> (mm)	Description (2)	Tolerance <sup>2)</sup> (3)	Dimension <sup>1)</sup> (mm)	Description (2)	Tolerance <sup>2)</sup> (3)
d5	Based on the size of dial opening and case size	± 30	h4	0.10 minimum	+ 30
d2	d5 - 0.10	± 30	h5	1.55 minimum	—
d1	d2 + 0.40	± 30	h7	0.72	+ 30 0
d4	d2 - 2t	—	h8	0.70	0 - 30
d6	d2 - 0.80	—	C	0.20 × 45°	—
d7	d5 + 0.50	+ 100 0	W1	0.70 for water resistant cases 0.50 for non-water resistant cases	± 50
d	d2 + 2.5 for water resistant cases d2 + 2.1 for non-water resistant cases	—	L	0.30 minimum	—
B°	40°	—	t	0.60 minimum for gents cases 0.50 minimum for ladies cases	—
C°	15°	—	h3	0.95	—
h1	1.45 minimum	± 30	R1	0.40	—
h2	0.38 for water resistant cases 0.35 for non-water resistant cases	± 30			

<sup>1)</sup> Except B° and C°

<sup>2)</sup> General tolerance ± 100 and tolerance in micrometre ( μm )

**Table 3 Type C — Dimensions for Hook Type Back Cover and Packing Ring in Back Cover For Round Watch Cases**  
*( Clause 3 )*



Dimension <sup>1)</sup> (mm)	Description	Tolerance <sup>2)</sup> (3)	Dimension <sup>1)</sup> (mm)	Description	Tolerance <sup>2)</sup> (3)
(1) $d_5$	(2) Based on the size of dial opening and bezel size	(3) $\pm 30$	(1) $h_7$	(2) 0.72	(3) $+ 30$ 0
$d_2$	$d_5 - 0.10$	$\pm 30$	$h_8$	0.70	0
$d_1$	$d_2 + 0.40$	$\pm 30$	$C$	$0.20 \times 45^\circ$	$- 30$
$d_4$	$d_2 - 2t$	—	$d_8$	$d_2 + 1.5$ for water resistant watches $d_2 + 1.10$ for non-water resistant watches	—
$d_6$	$d_2 - 0.80$	—	$d$	$d_2 + 2.5$ for water resistant cases $d_2 + 2.1$ for non-water resistant cases	$\pm 50$
$d_7$	$d_5 + 0.50$	$+ 100$ 0	$L$	0.30 minimum	—
$d$	$d_2 + 2.5$ for water resistant cases $d_2 + 2.1$ for non-water resistant cases	—	$t$	0.60 minimum for gents cases 0.50 minimum for ladies cases	—
$C^\circ$	$15^\circ$	—	$R_1$	0.40	—
$h_1$	1.45 minimum	$\pm 30$	$h_3$	0.95	—
$h_2$	0.38 for water resistant cases 0.35 for non-water resistant cases	$\pm 30$	$B^\circ$	$30^\circ$	$\pm 30'$

<sup>1)</sup> Except  $B^\circ$  and  $C^\circ$ .<sup>2)</sup> General Tolerance  $\pm 100$  and tolerance in micrometre ( $\mu\text{m}$ ).

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